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REPORT ON QUAMICHAN LAKE, DUNCAN, B.C.

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Report on Quamichan Lake, Duncan, B.C.

In the coastal region of British Columbia there are a number of fairly shallow lakes close to the sea which provide a type problem from the standpoint of fish production. One of these is Quamichan lake near Duncan which was the object of a preliminary examination by the writer on July 17, 1933. This lake, together with Somenos lake which is nearby, drains into the Cowichan river near its mouth. They will naturally be included in the biological survey of the Cowichan drainage area when this contemplated investigation is carried out. In the meantime it seemed advisable to recommend certain local improvements which might materially benefit the lake pending the more thorough investigation of the whole Cowichan river system.

Quamichan lake has received in the past fairly large allotments of trout from the Dominion hatchery at Cowichan lake, namely:-

1917 - 6,000 cutthroat fry	1922 - 20,000 Kamloops fry
1921 - 5,000 cutthroat fry	1925 - 48,000 Kamloops fry
1922 - 2,000 cutthroat fry	1926 - 50,000 Kamloops fry
	1927 - 40,000 Kamloops fry
	1928 - 25,000 Kamloops fry

The anglers who fish in Quamichan lake, and are in the best position to judge, have felt that they have not been getting an adequate return from these plantings. The belief was expressed that the fish produced from these plantings do not remain in the lake but ultimately migrate seawards. This hypothesis is worthy of serious consideration because it has an important bearing on all trout plantings made in waters with ready access to the sea.

From the evidence gathered it is quite probable that a considerable run of immature and mature fish formerly ascended from Cowichan bay into Quamichan creek and lake in the early spring providing good angling for about two months each year. These runs, however, have always been hindered to some extent by a

falls of six or seven feet just above the highway bridge. In addition a concrete dam with a sheer face downstream of five or six feet was constructed a few years ago between the falls and the lake. While this latter obstacle to migration can probably be negotiated at certain stages of the water, the lack of an adequate pool at its base does not provide the proper "take-off" for fish to surmount it readily.

In view of these considerations it is recommended that:

1. Further plantings of Kamloops trout be made in Quamichan lake with a definite attempt to trace what becomes of the fish both by marking and the establishment on Quamichan creek of a small fence for counting the upstream and downstream migrants.

2. That the two obstacles to migration in Quamichan creek be inspected by a member of the engineering staff of the Fishery Department. It is suggested that the falls could be quite easily overcome by a small fish-way and the dam, by erecting another three-foot dam below to provide a "take-off" pool.